

AMENDMENTS TO SPECIFICATION

At paragraphs [0015] through [0017], please amend the Specification as follows:

According to a first aspect of the invention, there is provided a data processing system for executing a program on the basis of commands and processing data, comprising: a command unit for sending the commands; a processing unit for recording the program; and an access unit for accessing a recording medium for both reading and recording the data, wherein said access unit includes means for sending to said processing unit position information indicating a recording position of the data recorded in the recording medium, said command unit includes means for sending to said processing unit commands including program identifying information for identifying the program, and said processing unit includes: means for requiring a feed of the data that corresponds to the program identifying information included in the commands received from said command unit and recorded in the recording position indicated by the position information received from said access unit; and means for executing the program identified by the program identifying information included in the command received from the command unit and processing the data received, wherein the command unit, processing unit and access unit are independent of each other, wherein a data owner controls access to the data for the program by controlling access to the recording medium and wherein only the program, program identifying information and data identifying information are recorded in the processing unit.~~a data processing system for executing a program on the basis of a command and processing data, comprise a command unit for sending the command; a processing unit for recording a program; and an access unit for accessing a recording medium recording the data, wherein said access unit includes means for sending to said processing unit position information indicating a recording position of the data recorded in the recording medium, said command unit includes means for sending to said processing unit a command including program identifying information for identifying the program, and said processing unit includes: means for requiring a feed of the data caused, in advance, to correspond to the program identifying information included in the command received from said command unit and recorded in the recording position indicated by the position information received from said access unit; and means for executing the program~~

identified by the program identifying information included in the command received from the command unit and processing the data received as required.

In the data processing system according to the first aspect of the invention, the command unit, the processing unit and the access unit are independent of each other whereby the data that are an object to be processed is controlled by the inherent data owner rather than the system controlling person. Accordingly, it is possible to enhance the security of the data. Also, since it is unnecessary to control the data by the processing unit recording the program, the load of each unit is dispersed and it is unnecessary to invest the cost to the installation due to the increase of the data to thereby make it possible to reduce the running cost.

According to a second aspect of the invention, there is provided a data processing system for executing a program on the basis of a command and processing data, comprising: a command unit for sending the command; a processing unit for recording a program; and an access unit for accessing a recording medium recording the data, wherein said access unit includes means for sending to said processing unit inventory information including data identifying information for identifying and position information indicating a recording position of the data recorded in the recording medium, said command unit includes means for sending to said processing unit a command including program identifying information for identifying the program and information used for identifying the data, said processing unit includes: a data table for recording the data identifying information and the position information caused to correspond to each other; a first program table for recording the data identifying information of the data related to the process of the program in association with the program identifying information; a second program table for recording the program in association with the program identifying information; means for recording to said data table the position information and the data identifying information included in the inventory information received from said access unit; means for extracting from the data table the position information corresponding to the information used for identifying the data and the data identifying information on the basis of the information used for identifying the data included in the command and the data identifying information recorded to the first program table in associated with the program identifying information included in the

~~command received from said command unit; and means for sending to said access unit data requirement for requiring a feed of the data recorded in the recording position indicated by the extracted position information, said access unit further includes: means for reading the data from the recording medium on the basis of the data requirement received; and means for sending the read data to said processing unit, and said processing unit further includes: means for extracting from the second program table the program identified by the program identifying information included in the command received from said command unit; and means for executing the extracted program and processing the data received from said access unit.~~

At paragraph [0018], please amend the Specification as follows:

In the data processing system according to the ~~second aspect of the~~present invention, the command unit, the processing unit and the access unit are independent of each other whereby the data that are an object to be processed is controlled by the inherent data owner rather than the system controlling person. Accordingly, it is possible to enhance the security of the data. Also, since it is unnecessary to control the data by the processing unit recording the program, the load of each unit is dispersed and it is unnecessary to invest the cost to the installation due to the increase of the data to thereby make it possible to reduce the running cost.

At paragraph [0021], please amend the Specification as follows:

In a data processing system according to a ~~third~~second aspect of the invention, in the ~~second~~first aspect of the invention, the inventory information sent from said access unit includes an owner identifying information for identifying an owner of the data, the information used for identifying the data included in the command sent from said command unit is an owner identifying information, and the position information, the data identifying information and the owner identifying information included in the inventory information is recorded on said data table.

At paragraph [0022], please amend the Specification as follows:

In the data processing system according to the ~~third~~-second aspect of the invention, the owner identifying information is used as the information for identifying the data so that the right for owning or processing the data may be clarified. Furthermore, only if the data identifying information and the owner identifying information recorded in the data table, the data identifying information and the program identifying information recorded in the first program table, and the owner identifying information and the program identifying information included in the command are all prepared, the program to be executed and the used data are determined to thereby make it possible to enhance the reliability and security of the data.

At paragraph [0023], please amend the Specification as follows:

In the data processing system according to a ~~fourth~~-third aspect of the invention in the ~~second~~-first or the ~~third~~-second aspect of the invention, the data identifying information to be assigned to the data that are a result from the execution of the program is recorded in said first program table in correspondence with the program identifying information, said processing unit further includes means for sending to said access unit the data that are the result of the execution of the program and the data identifying information to be assigned to the data on the basis of the first program table, and said access unit further includes means for recording the received data and the data identifying information to the recording medium.

At paragraph [0024], please amend the Specification as follows:

In the data processing system according to the ~~fourth~~-third aspect of the invention, not only the input data that are the data to be processed by the program but also the output data that are the result of the execution of the program are determined in the first program table in advance. As a result, it is unnecessary to perform by the program the process required to control the data, such as the determination of the recipient of the output of the data and the recording. It

is possible to change the method of controlling the data by changing the first program table without changing the program to thereby lower the mutual dependency between the program and the data and it is possible to easily apply the program to another data processing system to make it possible to suppress the increase of the development cost.

At paragraph [0026], please amend the Specification as follows:

In the data processing system according to a ~~fifth~~-fourth aspect of the invention, in any one of the first to ~~fourth~~-third aspects, a related program identifying information for identifying a related program to be executed in relation with the program is recorded in the second program table in correspondence with the program identifying information and the program, and the related program is a program for judging the absence/presence of the limit of the execution of the corresponding program.

At paragraph [0027], please amend the Specification as follows:

In the data processing system according to the ~~fifth~~-fourth aspect of the invention, before the execution of the program, the process for judging the absence/presence of the right to access the data and the right to execute the program is executed as the related program to make it possible to prevent the output and the operation of the data in an ill manner and to enhance the safety factor.

At paragraph [0029], please amend the Specification as follows:

In the data processing system according to a ~~sixth~~-fifth aspect of the invention, in any one of the first to ~~fifth~~-fourth aspects, the data recorded to the recording medium are ciphered data and said processing unit further includes: means for ciphering the data; and means for deciphering the ciphered data.

At paragraph [0030], please amend the Specification as follows:

According to the ~~sixth~~fifth aspect of the invention, the data recorded on the recording medium are ciphered and the data is deciphered by the processing unit to make it possible for the data owner controlling the data or the person who gets the recording medium to be prevented from using the data in an ill manner or falsifying the data, thereby increasing the reliability of the data.

At paragraph [0031], please amend the Specification as follows:

According to a ~~seventh~~sixth aspect of the invention, there is provided a processing apparatus which comprises communication means for communicating with another apparatus, and which executes a recorded program and processes data on the basis of a command, the processing apparatus characterized in: said communication means being configured so as to communicate with a command unit for transmitting a command, and an access unit for accessing a recording medium that records data; and [said apparatus further] comprising: a data table for recording data identifying information and position information caused to correspond to each other; a first program table for recording data identifying information of data related to the processing of a programs association with the program identifying information; a second program table for recording a program in association with the program identifying information-; means for receiving from said access unit inventory information including identifying information for identifying data recorded on said recording medium and position information indicating the recording positions of the data; means for recording to said data table the position information and the data identifying information included in the inventory information received from said access unit; means for receiving from said command unit a command that includes program identifying information for identifying a program and information used for identifying the data;
means for extracting from the data table data identifying information and position information that corresponds-to-the information used far identifying the data on the basis of the identifying information recorded in the first program table in association with the program identifying

information included in the command received from said command unit, and information used for identifying the data included in the command; means for sending to said access unit a data requirement for requiring a feed of the data recorded in the recording positions indicated by the extracted position information; means for receiving data for the data requirement from said access unit; means for extracting from the second program table a program identified by the program identifying information included in the command received from said command unit; and means for executing the extracted program and processing the data received from said access unit. a data processing apparatus for executing a program on the basis of a command and processing data, provided with means for communicating with another apparatus, comprising: means for receiving position information for indicating a recording position of the data; means for receiving a command including program identifying information for identifying the program; means for requiring a feed of the data caused, in advance, to correspond to the program identifying information included in the command received and recorded in the recording position indicated by the position information received; and means for executing the program identified by the program identifying information included in the command received and processing the data received as required.

Insert the following new paragraphs after paragraph [0032] of the Specification as follows:

Furthermore, only the program recorded in the second recorded in the processing unit; and the input data required to execute the program and the recording position thereof, the output data that are the result of the execution, the recording, position thereof, the data to be processed in the program such as contents of the data, and the purpose of the process are designated by the command. Accordingly, it is possible to simultaneously use the program for various purposes decided b the command. Also, since the mutual dependency between the program and the data is low, it is possible to easily apply the program to another system and to reduce the cost of developing the special program.

Furthermore since confidential data such as personal data and the like are not recorded in the processing unit, it is possible to publish the contents of a program, and to promote the utilization of this system.

At paragraph [0033], please amend the Specification as follows:

According to ~~an eighth~~ a seventh aspect of the invention, there is provided A computer program which causes a computer comprising a communication means for communicating with a command unit for sending a command, and an access unit for accessing a recording medium on which data are recorded, to execute a program based on the command and to process data, said computer program characterized in executing the steps of: causing the computer to correlate and record in a data table data identifying information and position information included in the inventory information received from said access unit; causing the computer to refer to a first program table in which the data identifying information for data related to the processing of the program have been recorded in advance in association with the program identifying information, and to extract from the data table position information that corresponds to the information used for identifying the data on the basis of the identifying information recorded in the first program table in association with the program identifying information included in the command received from said command unit, and information used for identifying the data included in the command; and causing the computer to send to said access unit a data requirement for requiring a feed of the data recorded in the recording positions indicated by the extracted position information, in a case in which said communication means receives from said command unit the inventory information including identifying information for identifying data recorded on said recording medium and position information for indicating the recording position of the data are received from said access unit, and a command including the program identifying information for identifying the program and the information used for identifying the data; and the steps of: causing the computer to extract a program identified by the program identifying information included in the received command from a second program table in which the program identifying

information and a program have been correlated and recorded in advance; and causing the computer to execute the extracted program, and to process the data received from said access unit, in a case in which data for the data requirement is received from said access unit.~~a computer program for executing a program on the basis of a command and processing data, for a computer provided with means for communicating with another apparatus, comprising the following steps: if position information indicating a recording position of the data is received and furthermore, the command including program identifying information for identifying the program is received to the computer, requiring a feed of the data caused, in advance, to correspond to the program identifying information included in the command received and recorded in the recording position indicated by the position information received; and executing the program identified by the program identifying information included in the command received and processing the data received as required.~~

Insert the following new paragraph after paragraph [0034] of the Specification as follows:

Furthermore, only the program recorded in the second recorded in the processing unit; and the input data required to execute the program and the recording position thereof, the output data that are the result of the execution, the recording, position thereof, the data to be processed in the program such as contents of the data, and the purpose of the process are designated by the command. Accordingly, it is possible to simultaneously use the program for various purposes decided b the command. Also, since the mutual dependency between the program and the data is low, it is possible to easily apply the program to another system and to reduce the cost of developing the special program.

Furthermore since confidential data such as personal data and the like are not recorded in the processing unit, it is possible to publish the contents of a program, and to promote the utilization of this system.